medical benefit, in contrast to the incentives inherent in fee-for-service systems to provide many services. Considered in isolation, this would surely result in fewer services per hospital admission. The PPS system already works in this direction, though. DRG-based payments for hospital services are inducing shorter lengths of stay for Medicare admissions so that physicians have fewer visits for which to bill, regardless of how they are reimbursed. Further, hospitals are attempting to persuade physicians to reduce their use of hospital services per admission.

Some additional effects would result from paying for physicians' services on a case basis. A case-based payment system for physicians would reduce current incentives for physicians to intensify their services to compensate for the smaller number of inpatient visits for which they can bill. It could also reduce use of consulting or supporting physicians' services for inpatient care. (Allowed amounts for inpatient consultations account for nearly 3 percent of all physicians' costs in Medicare, while inpatient costs for assistant surgeons, radiologists, anesthesiologists, and pathologists account for about 11 percent of all physicians' costs.) 4/ Incentives for physicians to suggest more postdischarge follow-up visits might also be reduced, if the case payment included a period of time before and after the inpatient episode.

Access to care and its quality, however, might be reduced under a case-based payment system for physicians. Patients with severe conditions might find that physicians were reluctant to treat them since they would be "unprofitable," unless the classification system accounted well for differences in severity among patients. The DRG system does not, and refinements or alternatives that might account better for differences in severity are not yet sufficiently developed to use even for hospital services. 5/ No work has been done to assess whether or how any of them would have to be modified for physicians' services. Quality of care might also be reduced, if primary physicians failed to use consultants in instances when skills supplemental to their own were required. Because consultations may be overused currently, however, some reduction might occur without adversely affecting health status.

A major concern about including physicians' services in the prospective payment system for inpatient care is that it might align the financial incentives facing physicians too closely with those of hospitals, so that physicians

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4. CBO tabulations from HCFA's 1984 Medicare Annual Data Procedure file.

5. See *Health Care Financing Review*, 1984 Annual Supplement. This issue is devoted to discussion of classification methods that would better account for differences in severity for inpatient episodes of care.

would be less effective as agents on behalf of their patients. Under the PPS, hospitals have financial incentives to limit services, but physicians do not currently face the same incentives. If payments to primary physicians were also case-based, those physicians might be less inclined to serve as advocates for their hospitalized patients.

Unit of Payment

The ideal classification method for grouping patients for payment purposes would be such that patients in any one category would require services that were reasonably uniform in terms of cost. A major consideration in evaluating a classification system for case-based payments is whether variation in actual treatment costs for patients in a given category arises because of appropriate differences in care, or because of unnecessary and costly differences in physicians' practice patterns. If the former, the classification system would have to be modified to avoid inappropriate changes in physicians' behavior. If the latter, the payment system could have the desirable result of eliminating high-cost practices of doubtful benefit, with eventual savings to Medicare if the initial DRG weights were changed to reflect the less resource-intensive practice patterns that would develop.

The DRG system currently used for hospital reimbursement under Medicare is based primarily on diagnosis at the time of discharge and on the principal surgical procedure performed, if any. Although payment is higher for cases in which the patient is older or has some other complicating condition, there are complaints that the DRGs do not account well for severity of illness within a particular group. Further, the groups defined by the system are not clinically homogeneous with regard to appropriate physicians' services. This is because of the difficulty in defining in advance what services will be required for most medical cases, and because some of the surgical DRGs fail to distinguish between types of surgery that require significantly different services by physicians. For example, DRG 39 includes both simple extractions of cataracts and extractions combined with implantation of an intraocular lens; DRG 209 includes all major joint procedures, no matter which joints or how many are involved. 6/

The reasoning behind the case-based approach for hospitals was that payment amounts set at average costs for any given category would reflect the appropriate (or at least the current) level of services, on average,

6. Pending HCFA regulations would create a separate DRG (471) for multiple joint procedures.

although payment for any specific case might be more or less than adequate for the services actually provided. Hospitals treat enough cases in each category so that, on average, the gains and losses on particular cases were expected to cancel out. There are problems even here, though, in that individual hospitals may experience gains or losses if their cases within DRGs are systematically less or more expensive to treat than the average. 7/ Concerns about this possibility have led to efforts to refine the DRG system by incorporating adjustments for severity within each DRG, in addition to the special provisions for teaching hospitals that were incorporated originally.

One analysis of Medicare data in four states indicated that primary physicians treat fewer than three cases in any given DRG category, on average, and fewer than 45 cases in all categories in the course of a year, so that gains and losses for individual physicians would not be likely to cancel out. 8/ As a result, physicians' financial risks from a series of unusually resource-intensive cases under a DRG-based payment system would likely be unacceptably high unless the patient-classification system was far more sensitive to severity differences than the DRG system is, or case payments were pooled across groups of physicians, such as all physicians on the hospital's medical staff, to spread the risk. It is uncertain how pooled payments to the medical staff would be allocated among physicians, though, or how much that would weaken the incentives inherent in a case-based system.

Payment Rates

As with a fee schedule, case-based payment rates could be viewed as the product of two parts--a relative value scale (RVS) and monetary multipliers. The schedule of payment rates by DRG would be an RVS, which could be recalibrated periodically in response to changes in practice patterns or technology. The monetary multipliers applied to the weights in the RVS could vary by location. In addition, the entire scale could be updated annually to keep pace with cost increases.

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7. In addition, some hospitals reportedly are treating the average expected days of care for each DRG as the maximum, telling Medicare patients, inaccurately, that their benefits are exhausted.

8. Janet Mitchell and others, "Physician DRGs: What Do They Look Like and How Would They Work?" (Center for Health Economics Research, Chestnut Hill, Massachusetts, February 1985). The states examined in this study were Michigan, New Jersey, North Carolina, and Washington.

Payment rates ideally would reflect the appropriate mix of services for each case at prices that reflected costs and any other relevant factors, but determining these rates could be very difficult. If payment rates for physicians' services were set at Medicare's average allowed amounts for each case, as they were for hospital rates, they would incorporate not only the current structure of rates for individual services but also current practice patterns. Payment based on average costs would, for example, allow partial payment for assistant surgeons in instances where the use of an assistant was not universal, while it would probably be better to decide whether or not the use of an assistant was good medical practice and to set the case payment rate accordingly.

Actual treatment costs vary substantially both above and below the average cost for DRG categories. As a result of this variation and its asymmetry (in that a small proportion of cases are extremely costly), payments based on average costs per DRG would result in larger payments than are currently received for most cases but in large losses for the most costly cases. Although variation is much less for surgical cases than for medical cases, physicians' financial risks could be large even for surgical cases because charges for surgical cases are generally greater than for medical cases. 9/

Assignment

Assignment would probably have to be made mandatory under a case-based payment system for physicians, especially if the system did not account well for differences in severity. Otherwise, physicians might accept assignment on cases that promised to be low-cost relative to the case payment, but refuse assignment on cases that were likely to be high-cost, thereby leaving the patient fully liable for charges above the case payment. As a result, patients with severe conditions would be effectively denied the protection that insurance is intended to provide. Mandatory assignment, however, could increase physicians' reluctance to accept patients with severe conditions.

9. The DRG system was developed for hospital services, not physicians' services. Surprisingly, though, it appears to create groups that are more homogeneous in use of physicians' services than of hospital services, although "homogeneous" is a relative term. None of the medical DRGs are homogeneous for hospital or physicians' services. See Mitchell and others, "Physician DRGs."

Quality and Volume Controls

Both quality assurance and utilization review would be required under a case-based system, although Peer Review Organizations already are doing much of this under the PPS. The principal advantage of a case-based pay ment system would be its effect on reducing unnecessary services within the package, but in some instances medically necessary services might be reduced as well. Consequently, monitoring the quality of care would be desirable during the inpatient episode. Readmissions would also have to be monitored to guard against attempts by physicians to do in two or several admissions what could be done in a single admission. In addition, carriers would have to monitor physicians' claims for ambulatory services on either side of the inpatient episode to ensure that services intended to be included in the case payment were not billed separately, and this would increase carriers' administrative costs.

INCLUDING HOSPITAL-BASED PHYSICIANS' SERVICES IN THE HOSPITAL PPS PAYMENT

A more limited alternative would expand the hospitals' DRG payments to reflect the costs of services provided by certain hospital-based physicians--radiologists, anesthesiologists, and pathologists (RAPs). 10/ RAPs are supporting physicians who commonly are either employed by or under contract to hospitals (see Table 21). Consequently, paying for their services through the hospital would be a less radical change than it would be for primary physicians. Further, RAPs are a group for which other payment mechanisms intended to encourage greater price-shopping by patients would not be effective, since patients rarely, if ever, have the opportunity to select the supporting physicians their physicians use.

The physicians affected, however, would likely object to this arrangement because it would reduce their autonomy and might significantly reduce growth in their income. Radiologists and anesthesiologists have the highest, and the most rapidly increasing, net incomes among physicians surveyed by the American Medical Association. Estimated rates of return to training for these specialties are also higher than for most other specialties (Table 22).

This approach would also reverse changes required by the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), effective October 1, 1983. TEFRA reiterated the intention of the Congress that patient-related

10. Other hospital-based physicians, such as staff consultants, might also be included.

TABLE 21. PHYSICIANS' FINANCIAL ARRANGEMENTS WITH HOSPITALS, 1981

Specialty	Percent with Financial Arrangements	Percent of Income from Hospital Arrangement a/
All Physicians	26	62
Radiologists	58	80
Anesthesiologists	27	87
Pathologists	78	96

SOURCE: American Medical Association, *Socioeconomic Characteristics of Medical Practice, 1983* (AMA, Chicago, Illinois), pp. 11-14.

a. This is the percent of net income that physicians who had financial arrangements attribute to their financial contracts with hospitals.

TABLE 22. PHYSICIANS' NET INCOME AND RETURN TO TRAINING, SELECTED SPECIALTIES

Specialty	Average Net Income (In current dollars) 1983	Annual Growth Rates (In percents) 1975-83	1981-83	Rate of Return to Training (In percents) 1983
All Physicians	106,300	8.2	6.9	16.0
Radiologists	148,000	8.8	12.5	20.0
Anesthesiologists	144,700	12.3	10.5	22.0
Pathologists	117,700	N.A.	N.A.	17.0

SOURCE: For income, American Medical Association, *Socioeconomic Characteristics of Medical Practice, 1984* (AMA, Chicago, Illinois); for rates of return, Frank Sloan and Joel Hay, "Medicare Pricing Mechanisms for Physicians' Services: An Overview of Alternative Approaches," *Medical Care Review*, vol. 43, no. 1 (Spring 1986).

NOTE: N.A. = not available.

services of all physicians be billed under the SMI program (Part B of Medicare), and HCFA's subsequent regulations eliminated the "combined billing" option by which hospitals had billed HI (or Part A) intermediaries for some hospital-based physicians' services as well as for hospital services. These regulations were intended to eliminate the possibility of double-billing--both through HI intermediaries and SMI carriers--for the services of hospital-based physicians. Double-billing would also be effectively prevented, however, if all billing for inpatient services for RAPs had to go through HI intermediaries. Further, this option would eliminate the need for hospitals to make sometimes arbitrary determinations of whether given RAP activities were patient-related (and hence billed through SMI) or not (and billed through HI).

Unit of Payment

In this case, the unit of payment would be based on the DRG classification system, with payment rates augmented to reflect the costs of patient-related services provided by RAPs. RAPs render some general administrative services to hospitals (not patient-related) that are already included in hospitals' costs under the PPS. The entire case payment would go to the hospital, which could establish any financial arrangements with the RAPs on staff that it chose.

By incorporating the costs of patient-related services of RAPs in hospitals' case payments for each Medicare patient, hospitals would have incentives (now lacking) to negotiate low-cost rates for these physicians and to use their patient-related services more efficiently. Potential savings would be relatively small, however, because allowed amounts for RAPs' patient-related inpatient services account for only about 10 percent of all physicians' allowed amounts under Medicare.

Payment Rates

The payment rate for each hospital DRG could be increased by an estimate of the reasonable costs of services rendered by RAPs to patients in each group. Some adjustment to this amount could be made if it was thought that the services of RAPS were currently overused or underused in some instances, although this could be difficult to determine.

Medicare's reimbursement costs could increase as a result of this change, unless some adjustment was made to copayments by enrollees to offset elimination of the 20 percent coinsurance that Medicare patients now

pay on approved charges submitted by RAPs. The HI first-day deductible, the SMI deductible, or SMI premiums could be increased to compensate for reduced coinsurance payments. Alternatively, Medicare could increase DRG rates by only 80 percent of current allowed amounts for RAPs, with the result that hospitals would either have to negotiate lower payments to RAPs on staff or accept a reduction in profits.

Assignment and Access

Assignment would become mandatory since the services of RAPs would be folded in with hospitals' services, and all hospital inpatient services are assigned under Medicare. Access to care would not be significantly affected by this expansion of the services included in the hospital's case payment so long as the addition to current payment rates was sufficient to compensate hospitals for the reasonable costs of services provided by RAPs. In fact, patients' access to care might be improved by this change if higher SMI premiums (rather than an increase in deductible amounts) were used to offset the loss of patient cost-sharing on the services of RAPs, because this would reduce out-of-pocket costs for enrollees with hospital stays and spread those costs among all SMI enrollees instead.

Quality and Volume Controls

No controls additional to those already in place under the prospective payment system would be required for inpatient services, since PROs currently monitor admissions and quality of care during inpatient episodes. This option could increase the need for quality and volume controls on services provided in ambulatory settings, however, since some RAPs might respond to this option by seeking to shift their services out of the hospital.

CHAPTER VI

CAPITATED PAYMENT SYSTEMS

Under a capitation approach, Medicare would pay a fixed amount per enrollee to selected organizations that would agree in return to provide all covered medical services to enrollees. Since Medicare's payment would be fixed in advance, it would be independent of the services actually used.

Organizations receiving capitated payments would be at risk; that is, they would profit if enrollees could be served for less, but would lose if expenses per person exceeded Medicare's payment. These organizations would have no financial incentive to provide unnecessary services, because they would receive no extra revenue from additional services. Instead, their incentives would be to provide the least costly mix of services that would deal with enrollees' medical needs and to produce those services as efficiently as possible.

This chapter discusses three types of capitated systems. In the first, the organizations at risk would be prepaid medical plans (PMPs) that combined the roles of insurer and health care provider. In the second system, Medicare enrollees would be permitted to use a voucher (based on the adjusted average per capita cost of Medicare benefits) to purchase traditional indemnity insurance instead of Medicare. In the third system, the agencies at risk would serve as Medicare carriers who would not only administer payments but would also arrange for physicians and other health care providers to care for all Medicare enrollees in their jurisdictions. 1/

PREPAID MEDICAL PLANS

All Medicare enrollees currently have the option of enrolling in risk-based prepaid medical plans, and, as of March 1986, about 590,000 (or 2 percent)

1. Individual physicians would not likely accept the risks of capitated payments (unless Medicare paid them a substantial risk premium), since each physician's total patient load each year would be too small to ensure that high-cost patients would be offset by other low-cost patients.

of enrollees had elected this option. 2/ The primary issues with regard to Medicare enrollment in PMPs are whether it would be desirable to provide greater incentives for enrollment than already exist and, if so, how to create those incentives. As discussed below, health care costs may be lower under (at least some forms of) capitated payment systems than in the fee-for-service sector, with few apparent adverse effects on quality of care. Hence, greater enrollment in PMPs may have potential for reducing Medicare costs, although savings for the Medicare population may be smaller than for the non-Medicare populations studied. Incentives for enrollment--both for Medicare enrollees and for PMPs--are determined by provisions regarding Medicare's capitated payment rates to providers.

Unit of Payment

Under a capitation system, the unit of payment is the individual, and the capitated payment is intended to include all covered services required by the individual during a given period of time. Medicare's payments to PMPs cover Medicare's share of costs for HI and SMI services, based on Medicare's actual costs in the fee-for-service sector for enrollees of the same type. Since the services covered by PMPs are typically more extensive than those covered by Medicare, enrollees often pay a supplemental premium to the PMP in addition to the SMI premiums they pay.

Prepaid medical plans may take a number of forms, but the two major types are the group or staff model health maintenance organization (HMO) and the independent practice association (IPA). In HMOs, physicians are employees (as in a staff model) or contractors (as in a group model) of the organization that is at risk, and they provide services only to HMO enrollees at one or a limited number of sites. In IPAs, member physicians maintain their individual practices and provide services on a fee-for-service basis, both to IPA enrollees and to other patients. Their association with the IPA typically involves an ownership interest in the organization and in any profits or losses resulting from serving prepaid patients, coupled with acceptance of conditions imposed by the IPA to restrain use of services, such as preadmission certification for nonemergency hospitalization, utilization review, and prorated reductions in reimbursement rates if use of services is high.

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2. Another 150,000 enrollees were receiving services from PMPs on a cost-reimbursement basis, while about 640,000 enrollees were receiving services from health care prepayment plans (which provide only Part B services, on a cost-reimbursement basis).

Payment Rates

Under the provisions for risk-based PMPs contained in the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), Medicare makes monthly payments for each Medicare enrollee equal to 95 percent of Medicare's adjusted average per capita costs (AAPCC)--an actuarial measure of the costs that Medicare would have incurred if the plan's enrollees had received services from fee-for-service providers in the same community. Payment rates vary by county and also by enrollees' characteristics. The characteristics used to vary rates currently include enrollees' age, sex, welfare status, and whether they are in institutions.

If Medicare enrollees who elect to receive care from PMPs are, on average, like other Medicare enrollees, setting Medicare's payment rates at 95 percent of the AAPCC will save Medicare 5 percent per Medicare/PMP enrollee. The PMP option could save Medicare more than 5 percent if PMP enrollees are more likely to use services than the average Medicare enrollee, while Medicare costs might increase if PMP enrollees are less likely to use services than average. A major concern is that PMPs will enroll primarily healthier people. If this occurs, Medicare payments to PMPs will be higher than necessary to cover the costs for these enrollees, thereby increasing Medicare's costs. This biased selection could occur either because PMPs market their services selectively, or because less healthy enrollees are more likely to want to stay with their fee-for-service physicians. IPAs are less likely than HMOs to benefit from the latter cause of biased selection, though, because in many instances enrollees are able to continue with their current physicians.

In an effort to limit profits for PMPs arising from biased selection, the Congress required that certain savings would have to be used to benefit enrollees. PMPs with Medicare enrollees are required to compute their "adjusted community rate" (ACR)--that is, each PMP's estimated per capita cost for providing the services covered by Medicare to Medicare enrollees. If a plan's ACR is less than Medicare's average payment for enrollees, the plan is required to provide Medicare enrollees with additional benefits, or to reduce their PMP premiums or copayments. Methods for calculating the ACR are not well defined, though, and some PMPs may be making--and retaining--sizable profits from Medicare enrollees.

Because of these requirements related to each plan's ACR, PMPs' profits on Medicare enrollees are limited, at least in principle, but their potential losses are not. The risk of loss from Medicare enrollees could be substantial, especially for relatively small PMPs, because the cost of care

varies substantially among Medicare enrollees. Each year, nearly 50 percent of Medicare reimbursements are made on behalf of only 5 percent of enrollees. In 1984, no reimbursements were made for 30 percent of enrollees. 3/ The financial risks to PMPs are even higher than these figures indicate, since PMPs generally provide better coverage for catastrophic expenses than Medicare does.

Prepaid medical plans can reduce their financial risks from Medicare enrollees by attempting to enroll individuals who present a lower risk. Small plans, in particular, have a strong incentive to cushion against such risk. Medicare attempts to limit the success of such efforts, however, by requiring Medicare-eligible PMPs to hold open enrollment periods of at least 30 consecutive days each year. During the open enrollment period, plans are required to accept enrollees up to their capacity limits on a first-come basis, regardless of risk factors. Most analysts believe, however, that biased selection may occur even with open enrollment requirements. 4/

The incentives for PMPs to engage in marketing techniques that would lead to biased selection of enrollees could be reduced in two ways. First, Medicare could refine the methods used to calculate the AAPCCs so that payments would more closely reflect average costs for various groups of enrollees, thereby reducing the PMPs' financial incentives to prefer some types of enrollees over others. Second, Medicare could limit PMPs' financial risk by capping the maximum losses they would have to absorb for high-cost enrollees--that is, implementing stop-loss provisions. Both approaches would reduce but would not eliminate the financial incentives for PMPs to provide care efficiently.

Research is under way to refine the AAPCCs by incorporating measures of prior use of medical care and indicators for whether prior medical problems were acute or chronic. Modifications of the AAPCCs that recognize only prior use of medical care raise the explanatory power (or predictive accuracy) of the AAPCCs from less than 1 percent of actual costs per enrollee to 4 percent. When information on diagnoses indicative of chronic conditions likely to result in continued high medical costs also is

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3. See Daniel Waldo and Helen Lazenby, "Demographic Characteristics and Health Care Use and Expenditures by the Aged in the United States, 1977-1984," *Health Care Financing Review*, vol. 6, no. 1 (Fall 1984), pp. 1-29; and Social Security Administration, *Social Security Bulletin, Annual Statistical Supplement, 1984-1985.*

4. J. Beebe and others, "Using Prior Utilization to Determine Payments for Medicare Enrollees in Health Maintenance Organizations," *Health Care Financing Review*, vol. 6, no. 3 (Spring 1985), pp. 27-38.

incorporated, the explanatory power of the modified AAPCCs is increased to 9 percent of the variance in actual costs per enrollee. 5/ The accuracy with which a refined AAPCC would reflect costs for groups of enrollees is more important than its ability to predict costs for individual enrollees, though, because Medicare pays PMPs for groups of enrollees. By adjusting the AAPCC for prior hospitalization and for receipt of SMI reimbursements, prediction errors for groups of enrollees could be reduced by one-half to one-third of the average error using the current AAPCC. 6/

Despite greater predictive ability, use of prior utilization to improve the sensitivity of the AAPCCs may be undesirable, if it is subject to manipulation by PMPs. If payment rates were increased on the basis of prior hospitalization, for example, inefficient PMPs that hospitalize more often than necessary would be rewarded. Use of any refinement to the AAPCC that could be manipulated by PMPs would lead back to the perverse incentives that improvement of the AAPCCs is intended to eliminate. 7/ Research is now under way to find accurate predictors of costs per enrollee that are outside the control of health care providers.

Under stop-loss provisions for PMPs, Medicare would share the costs of high-cost enrollees, thereby reducing financial risks for PMPs. In exchange for sharing the risk, Medicare might pay PMPs that elect this option a lower proportion of the AAPCC than is paid to PMPs that bear all the risk. In effect, Medicare would be providing reinsurance to PMPs. 8/ The stop-loss provisions could be based on individual costs; Medicare might pay 80 percent of the costs of an individual's care over a specified amount, for example. Alternatively, stop-loss protection could be based on a plan's aggregate costs for Medicare enrollees, so that Medicare would absorb a PMP's losses on Medicare enrollees that exceeded 5 percent, say, of Medicare's capitation payments to the plan.

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5. Office of Technology Assessment, *Payment for Physician Services: Strategies for Medicare*, OTA-H-294 (February 1986), p. 190.

6. See Beebe and others, "Using Prior Utilization to Determine Payments for Medicare Enrollees in Health Maintenance Organizations."

7. See Walter McClure, "On the Research Status of Risk-Adjusted Capitation Rates," *Inquiry*, vol. 21 (Fall 1984), pp. 205-213, for a discussion of the risks of adjustment factors that are subject to the control of providers.

8. Some PMPs currently purchase reinsurance through private insurance companies, but the federal government might provide it at lower cost because of lower marketing and administrative expenses.

If the AAPCCs were refined, payment rates might be set lower than 95 percent of costs in the fee-for-service sector and still result in profits for PMPs. Considerable evidence exists--at least for the HMO variant and for nonelderly populations--that the incentives generated by capitated payments for health care effectively reduce the costs of care, primarily by reducing the incidence of hospital admissions. 9/ For hospitalized patients, studies have found only small differences between HMO enrollees and fee-for-service patients in the volume and cost of services provided, but these studies did not control for severity of illness. 10/ Since HMO enrollees are less likely to be hospitalized, those who are hospitalized may have more severe conditions, on average, than the typical fee-for-service patient who is hospitalized. Enrollees in HMOs typically use more ambulatory services, primarily office visits, than patients in the fee-for-service sector, but this is apparently because of the lower out-of-pocket costs generally faced by enrollees in HMOs for visits. Visit rates are similar for HMO and fee-for-service patients when neither group faces out-of-pocket costs. The net result is that health care costs are about 25 percent lower for enrollees in HMOs than for similar individuals receiving care in the fee-for-service sector under similar conditions with regard to cost-sharing. 11/

The ability of IPAs to reduce costs is less well documented, but there are indications that IPAs that implement stringent controls, which are increasingly acceptable to physicians because of growing competition for patients, also can reduce costs significantly. A comparison of inpatient days per enrollee provides one crude measure of the success of IPAs at controlling costs, relative to traditional HMOs and the fee-for-service sector. Data for 1984 show that average inpatient days per enrollee in IPAs was .448, compared with an average of .418 for staff-type HMOs and .700 for people receiving care on a fee-for-service basis. 12/ One concern with the IPA model, however, is that physicians who treat both IPA and fee-for-service patients may tend to favor fee-for-service patients when they are fully booked, since treating those patients would likely involve fewer constraints on fees and volume of services.

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9. See H.S. Luft, *Health Maintenance Organizations: Dimensions of Performance* (New York: Wiley, 1981).

10. Richard J. Arnould and others, "Do HMOs Produce Specific Services More Efficiently?" *Inquiry*, vol. 21 (Fall 1984), pp. 243-253.

11. W.G. Manning and others, "A Controlled Trial of the Effect of a Prepaid Group Practice on Use of Services," *New England Journal of Medicine*, vol. 310, no. 23 (June 7, 1984), pp. 1505-1510.

12. Interstudy, *National HMO Census, 1984* (Excelsior, Minnesota: Interstudy, 1985).

Savings under capitation for Medicare enrollees might be smaller than the results reported above for the nonelderly population, however, because the major savings found for capitation come from less hospital use per enrollee compared with patients in the fee-for-service sector. For Medicare enrollees, the prospective payment system and preadmission reviews by Peer Review Organizations are already constraining use of the hospital, leaving less room for capitated payment systems to generate further savings.

Assignment

Assignment is not an issue for prepaid medical plans. Enrollees in PMPs have entered into a contractual arrangement with the plan, under which the plan agrees to provide a set of specified services, as required and under well-defined conditions (concerning copayments, for example), in return for certain premium payments.

Quality and Volume Controls

Medicare's concern when care is provided by PMPs is limited to quality of care and not to volume, since the payment system itself contains strong financial incentives for PMPs--but not necessarily for physicians on staff--to limit unnecessary care. The PMPs must implement appropriate incentives or control mechanisms to limit use of services by physicians and patients. Under TEFRA, Medicare-eligible PMPs are required to establish quality assurance review programs.

Despite lower costs for care, studies have found little evidence that quality of care in HMOs is below that provided in the fee-for-service sector, although no research to date has examined care provided specifically to Medicare enrollees. 13/ Continuity of care is likely better managed in HMOs, because central records are maintained and care is coordinated. Care for well-defined illnesses for which there is consensus on appropriate treatment is unlikely to differ in HMOs from the fee-for-service sector, since physicians in HMOs are subject to the same standards and at least the same malpractice risk as other physicians. 14/

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13. The Health Care Financing Administration has funded the National Medicare Competition Evaluation to evaluate the quality of care provided in Medicare's risk-sharing plans, but results from that study are not expected until 1987.

14. See M.C. Hornbrook and S.E. Berki, "Practice Mode and Payment Method," *Medical Care*, vol. 23, no. 5 (May 1985), pp. 484-511.

The major concern regarding quality of care in HMOs centers on patients whose conditions cannot be readily identified. Definitive treatment may be delayed, perhaps because of bureaucratic impediments designed to prevent unnecessary treatment based on inconclusive or false test results. Findings from a study in Washington state of fee-for-service and HMO patients with colorectal cancer provide some evidence for this concern. Treatment was comparable once diagnosis was made, but the average time that elapsed between initial contact with a physician and start of treatment (surgery) differed substantially--14 days in the fee-for-service sector, and 47 days in HMOs. During the pretreatment period, HMO patients received significantly more services (tests and consultations with other physicians) than did fee-for-service patients. Despite delays in initiating treatment, no differences in outcome were found between fee-for-service and prepaid patients for the four years following surgery. 15/

MEDICARE VOUCHERS

The Administration has proposed to expand the group of health benefit plans that could qualify for capitation payments under Medicare, by permitting Medicare enrollees who are covered for both Hospital Insurance and Supplementary Medical Insurance to purchase traditional indemnity insurance using vouchers equal to 95 percent of the AAPCC. 16/ Under this proposal, Medicare would make fixed per capita payments on behalf of enrollees who chose this option, but the enrollees would obtain care in the fee-for-service sector and receive insurance reimbursements for part of their costs. The proposal would change the enrollment provisions currently in effect under TEFRA. Enrollees would no longer be free to switch plans at any time during the year. Instead, there would be a nationwide open enrollment period each year and, once a plan was selected, enrollees would be unable to change plans until the next year's enrollment period.

The voucher option would expand choice for Medicare enrollees in two ways:

- In addition to the standard Medicare package or enrollment in qualified PMPs, enrollees could choose to purchase traditional indemnity insurance coverage from private insurers.

15. A. M. Francis and others, "Care of Patients with Colorectal Cancer: A Comparison of a Health Maintenance Organization and Fee-For-Service Practices," *Medical Care*, vol. 22, no. 5 (May 1984), pp. 418-429.

16. The Administration's bill (The Medicare Voucher Act of 1986, S. 1985) was introduced in the Senate on December 18, 1985.

- The proposal would give enrollees a broader choice of benefit packages. Under current law, PMPs must offer the standard Medicare benefit package (and may offer more). Under the voucher proposal, plans would be permitted to offer a variety of benefit packages that differed from the standard Medicare package, so long as average cost-sharing by enrollees on Medicare-covered services under the alternatives would not exceed average cost-sharing for enrollees in the Medicare program (called "actuarial equivalence"). Cost-sharing would be defined to include not only deductible amounts and coinsurance, but also balance-billing amounts and payments for services subject to day or dollar limits under Medicare. Payments for insurance premiums would be excluded from the calculation.

Because the costs to insurers of marketing insurance coverage to individuals is very high, resulting in premiums that are substantially higher than expected benefits, this option would probably appeal only to people who could purchase insurance through a group association. One example would be retired Medicare enrollees who have group health benefits from a former employer--about 6 million people, according to Administration estimates. (Enrollees who are still working and for whom Medicare is a second payer would be ineligible for the voucher.) Under current law, Medicare enrollees are unable to benefit from their employment-based coverage if they choose a prepaid medical plan. With the voucher, the value of Medicare benefits might be combined with employer contributions to purchase a more satisfactory package of benefits.

Unit of Payment

For Medicare, the unit of payment would be the individual enrollee. For the private insurers whose coverage was purchased by enrollees with their vouchers, however, payments would likely be made on a fee-for-service basis. Insurers would face similar incentives as IPAs, in that they would receive a fixed prepaid amount from Medicare (perhaps supplemented by an additional premium paid by each enrollee) in return for agreeing to arrange for a specified benefit package for enrollees, including prescribed limits on average cost-sharing by patients. Insurers would have incentives to institute utilization review programs and to negotiate discounts with selected providers, either to compete with other insurers with a better benefit package or to increase profits. The proposed legislation contains provisions to ensure that private insurers under this option could obtain Medicare rates for hospital stays; Medicare enrollees who chose the voucher option therefore would not lose the benefits of Medicare's market power in the hospital sector.